CLAIMS

- 1./ A purified HCV polynucleotide.
- 2./ A recombinant HCV polynucleotide.
- 3. A recombinant polynucleotide comprising a sequence derived from an HCV genome or from HCV cDNA.
- 4. A recombinant polynucleotide encoding an epitope of HCV.
 - 5. A recombinant vector containing the polynucleotide of claim 2, or claim 3, or claim 4.
 - 6. A host cell transformed with the vector of claim 5.
- 7. A recombinant expression system comprising 20 an open reading frame (ORF) of DNA derived from an HCV genome or from HCV cDNA wherein the ORF is operably linked to a control sequence compatible with a desired host.
- 8. A cell transformed with the recombinant expression system of claim 7.
 - 9. A polypeptide produced by the cell of claim

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10// Purified HCV.

1/1. A preparation of polypeptides from the HCV of claim 1/0.

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12./ A purified HCV polypeptide.

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13. A purified polypeptide comprising an epitope which is immunologically identifiable with an epitope contained in HCV.

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14./ A recombinant HCV polypeptide.

15 A recombinant polypeptide comprised of a sequence derived from an HCV genome or from HCV cDNA.

10 16 A recombinant polypeptide comprised of an HCV epitope.

17 A fusion polypeptide comprised of an HCV polypeptide.

18. A monoclonal antibody directed against an HCV epitope.

19 A purified preparation of polyclonal anti-20 boxies directed against HCV.

20 A particle which is immunogenic against HCV infection comprising a non-HCV polypeptide having an amino acid sequence capable of forming a particle when said sequence is produced in a eukaryotic host, and an HCV epitope.

21/ A polynucleotide probe for HCV.

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22 A kit for analyzing samples for the presence of polynucleotides derived from HCV comprising a polynucleotide probe containing a nucleotide sequence from HCV of about 8 or more nucleotides, in a suitable container.

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23/ A kit for analyzing samples for the presence of an HCV antigen comprising an antibody directed against the HCV antigen to be detected, in a suitable container.

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24 A kit for analyzing samples for the presence of an antibodies directed against an HCV antigen comprising a polypeptide containing an HCV epitope present in the HCV antigen, in a suitable container.

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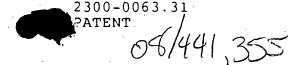
25 A polypeptide comprised of an HCV epitope, attached to a solid substrate.

26 An antibody to an HCV epitope, attached to 15 a solid substrate.

- 27. A method for producing a polypeptide containing an HCV epitope comprising incubating host cells transformed with an expression vector containing a sequence encoding a polypeptide containing an HCV epitope under conditions which allow expression of said polypeptide.
- 28. A polypeptide containing an HCV epitope 25 produced by the method of claim 27.
 - 29 / A method for detecting HCV nucleic acids in a sample comprising:
- (a) reacting nucleic acids of the sample with a 30 probe for an HCV polynucleotide under conditions which allow the formation of a polynucleotide duplex between the probe and the HCV nucleic acid from the sample; and
 - (b) detecting a polynucleotide duplex which contains the probe.

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30 An immunoassay for detecting an HCV antigen comprising:

- (a) incubating a sample suspected of containing an HCV antigen with a probe antibody directed against the
 5 HCV antigen to be detected under conditions which allow the formation of an antigen-antibody complex; and
 - (b) detecting an antigen—antibody complex containing the probe antibody.
- 10 31 An immunoassay for detecting antibodies directed against an HOV antigen comprising:
- (a) incubating a sample suspected of containing anti-HCV antibodies with a probe polypeptide which contains an epitope of the HCV, under conditions which
 15 allow the formation of an antibody-antigen complex; and
 - (b) detecting the antibody-antigen complex containing the probe antigen.
- 32. A vaccine for treatment of HCV infection
 20 comprising an immunogenic polypeptide containing an HCV
 epitope wherein the immunogenic polypeptide is present in
 a pharmacologically effective dose in a pharmaceutically
 acceptable excipient.
- 25 33 A vaccine for treatment of HCV infection comprising inactivated HCV in a pharmacologically effective dose in a pharmaceutically acceptable excipient.
- 34. A vaccine for treatment of HCV infection 30 comprising attenuated HCV in a pharmacologically effective dose in a pharmaceutically acceptable excipient.

35/ A tissue culture grown cell infected with HCV.

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36. The HCV infected cell of claim 35, wherein the cell is of a human macrophage cell line, or is of a hepatocyte cell line, or is of a mosquito cell line, or is of a tick cell line, or is of a mosse macrophage cell line, or is an embryonic cell.

37. The HCV infected cell of claim 35, wherein the cell is of a cell line derived from liver of an HCV infected individual

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38, A method for producing antibodies to HCV comprising administering to an individual an isolated immunogenic polypeptide containing an HCV epitope in an amount sufficient to produce an immune response.

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39. A method for producing antibodies to HCV comprising administering to an individual the polypeptide preparation of claim 11 wherein the preparation contains at least 1 immunogenic polypeptide, and the administering 20 is of an amount sufficient to produce an immune response.

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